***Pre-Calculus 12 Formulae***

sin ( + ) = sin cos + cos sin

sin ( – ) = sin cos – cos  sin

cos ( + ) = cos cos – sin  sin

cos ( – ) = cos cos + sin  sin

tan () = 

tan ( ) = 

sin2*θ* = 2sin*θ*cos*θ*

cos2*θ* = cos*θ* - sin*θ*

= 1 – 2sin*θ*

= 2cos*θ* – 1

tan2*θ* = 

*tn = t1 + (n-1)d Sn =*

*Sn = (t1 + tn) tn = t1 rn-1*

*Sn =*

*S∞ =*

*nPr = nCr =*

*(x + y)n  = nC0(x)n(y)0 + nC1(x)n-1(y)1 + nC2(x)n-2(y)2 + …+ nCn-1(x)1(y)n-1 + nCn(x)0(y)n*